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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/525,734

02/28/2005

Shintarou Mikami

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2556

39083 7590 10/18/2007  
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EXAMINER

BUMGARNER, MELBA N

ART UNIT

PAPER NUMBER

3732

MAIL DATE

DELIVERY MODE

10/18/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/525,734

Applicant(s)

MIKAMI ET AL.

Examiner

Melba Bumgarner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 August 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Objections*

1. Claim 6 is objected to because of the following informalities: recitation of “the elastic body” lacks sufficient antecedent basis. Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 6, 10-13, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crisio, Jr. (5,813,855) in view of Kuo (6,599,048). Crisio, Jr. discloses a toothbrush 10 comprising a head portion 16 with a brush portion located on a surface, a toothbrush body 14, and a shaft 12 that connects the head portion and the body, the body being provided with light emitting means to irradiate light toward the head portion, the shaft being structure to permit the light to transmit therethrough, a tip end of the head portion provided with a tip-end light transmitting portion configured to transmit light from the means outside of the head portion; however, Crisio, Jr. does not show a surface of the head portion including an elastic portion. Kuo teaches a toothbrush having at least a surface of the head portion including an elastic portion 5. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the toothbrush of Crisio, Jr. with the elastic portion of Kuo in order to provide a barrier between the bristles and the gums during brushing in view of Kuo. The surface of the head portion on which the brush portion is provided does not include the

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elastic portion and is thereby formed with a brush portion light transmitting portion and a surface opposed to the surface, the head portion includes sides that have outer peripheries and the elastic portion is formed on a part of the peripheries of the sides and in a substantially central region of the opposed surface. It would have been an obvious matter of choice to one of ordinary skill in the art as to the curvature of the back surface light transmitting portion at the periphery. The surfaces of the elastic portion of Kuo would project from the surfaces of the head portion. It would have been an obvious matter of choice to one of ordinary skill in the art as to whether the thermoplastic elastomer material of Kuo is transparent or not. The light emitting means irradiates light along a light emitting axis, and the brush portion is spaced from the axis.

4. Claims 1, 5, 6, 10, 14, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crisio, Jr. (5,813,855) in view of Raven et al. (5,991,959). Crisio, Jr. discloses a toothbrush 10 comprising a head portion 16 with a brush portion located on a surface, a toothbrush body 14, and a shaft 12 that connects the head portion and the body, the body being provided with light emitting means to irradiate light toward the head portion, the shaft being structure to permit the light to transmit therethrough, a tip end of the head portion provided with a tip-end light transmitting portion configured to transmit light form the means outside of the head portion; however, Crisio, Jr. does not show a surface of the head portion including an elastic portion. Raven et al. teach a toothbrush having at least a surface of the head portion including an elastic portion 6. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the toothbrush of Crisio, Jr. with the elastic portion of Raven et al. in order to prevent damage of the teeth or surrounding soft tissue due to excessive force or brushing frequency in view of Raven et al. Raven et al. show an embodiment having the

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elastic portion includes a shaft elastic body on the shaft in the vicinity of the head portion (figure 16). The elastic portion of the shaft on Crisio, Jr. would provide a surface of the shaft that does not include the shaft elastic body and is thereby provided with a shaft light transmitting portion. The light emitting means irradiates light along a light emitting axis, and the brush portion is spaced from the axis.

5. Claims 7-9 and 15-17 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Crisio, Jr. in view of Kuo and further in view of Raven et al. The modified toothbrush of Crisio, Jr. and Kuo shows the limitations as described above; however, they do not show the elastic portion including a shaft elastic body on the shaft. Raven et al. show an embodiment having the elastic portion includes a shaft elastic body on the shaft in the vicinity of the head portion (figure 16). It would have been obvious to one having ordinary skill in the art to further modify the toothbrush to have the shaft elastic body in order to further encase portion of the shaft with elastic material and further prevent damage of teeth and soft tissue.

#### ***Response to Arguments***

6. Applicant's arguments filed August 9, 2007 have been fully considered but they are not persuasive. Crisio, Jr. reference shows a toothbrush with light emitting means irradiating light through the shaft and tip-end portion, including the bristles which are located in the tip-end portion, to the outside of the head portion (figure 1), and teaches that the field of invention is to provide illumination of the teeth or interior of the mouth while brushing (column 1 line 21). The secondary references of Kuo and Raven et al. are used to show the structural limitations that are deficient in Crisio, Jr., as Crisio, Jr. discloses features of the illuminated toothbrush.

*Conclusion*

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Melba Bumgarner whose telephone number is 571-272-4709. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached at 571-272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Melba Bumgarner  
Primary Examiner